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10/028,727

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Howard Scott Forstrom

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05/02/2006

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EXAMINER

SZYMANSKI, THOMAS M

ART UNIT

PAPER NUMBER

2134

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/028,727 | Applicant(s) FORSTROM ET AL. | |
| | Examiner Thomas Szymanski | Art Unit 2134 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,7-11,18-21,24-27,32,33,35 and 36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,7-11,18-21,24-27,32,33,35 and 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 3, 7-11, 18-21, 24-27, 32-33, and 35-36 have been examined.

Specification

2. The amendment filed 2/22/2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: Negotiating through subsequent messages transmitted between the first communication device and second communication device communication parameters to be used for subsequent communication between the first and second devices. The process of negotiating as understood within the applicant's invention comprises the second device receiving the message, and negotiating by the process of differentiating from the provided attribute information as to what format the received content is in and how to decode that information based on those attributes. The examiner has been unable to find any disclosure of the second device responding to the first device in subsequent messages sent back to the first device from the second.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 8-11, 18-21, 24-27, 32-33, and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stone et al European Patent No. 1098522 (hereinafter "Stone"), and further in view of Levy United States Patent Application Publication No. 2001/0044899 (hereinafter "Levy").
5. Stone teaches a method of watermarking a signal with a functional ID that refers to a set of attributes but fails to disclose watermarking the signal with the specific attributes themselves.
6. Levy teaches transmission of multimedia signals wherein the signals are watermarked to be robust and compatible with many systems.
7. Compatibility of media with legacy systems and the robustness of that media to be used on a variety of different systems is a desirable advantageous feature wherein a simple watermark may be used to employ such robustness (Levy abstract, paragraphs 6-10, 12-17).
8. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the systems of Levy and Stone for the advantages of increased compatibility as outlined above. The combination of these two systems comprises employing the system of Levy upon the watermarked media of Stone to achieve the improved watermarked media.
9. Regarding Claims 35 and 36: Generating at a first device information concerning the communication capabilities of the first device (Stone Fig 1, pg 2 lines 5-31, abstract, Levy Fig 1 paragraphs 12-13, 15-23, 25-29, 32, 34-41) The communication capabilities of the first device relate to the manner in which the media content is encoded and sent

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as related to specifications of the device and content. The combined reference teaches that information originally associated with the media is decoded and may be placed back into the media in a new format. This process then dictates that the information associated with the original watermark is recovered and placed into the new watermark that is combined with the stream so as to produce the more robust markings. As shown that information related to the original watermark specifies attributes of the first device that relate to its communication capabilities.

Combining said information with a data stream to produce a message (Stone pg 2 line 8, Levy Fig 1 paragraphs 12-23)

Transmitting the message to the second device (Levy Fig 1, Stone pg 3 lines 9-10, fig 1 p717)

Receiving the message from the first device (Stone Fig 1, pg 2 lines 11-14, Levy Fig 1)

The systems inherently provide for the reception and decoding of the provided watermarking.

Extracting said information from the message to determine the communication capabilities of the first device (Stone Table 1, Fig 1, pg 2 lines 5-14, Levy Fig 1, paragraph 26, 28-29, 36-41)

Negotiating with the first communication device parameters for communication between the first communication device and second communication device (Stone Table 1, Fig 1, pg 2 lines 5-14, Levy Fig 1, paragraph 26, 28-29, 36-41) The process of negotiating as understood within the applicant's invention comprises the second device receiving the message, and negotiating by the process of differentiating from the provided attribute

information as to what format the received content is in and how to decode that information based on those attributes. As described in the provided references all information concerning the encoding and source of the data is provided and inherently extracted by the receiving party in order to use the data.

Negotiating through subsequent messages transmitted between the first communication device and second communication device communication parameters to be used for subsequent communication between the first and second devices (Stone Table 1, Fig 1, pg 2 lines 5-14, Levy Fig 1, paragraph 26, 28-29, 36-41) The recitation of subsequent messages transmitted between the two devices has been taken to mean that the first device sends subsequent messages in the form of continued stream of data with no explicit messages being sent from the second device back to the first device. The continual decoding of the information is an inherent function of the receiving party.

10. Regarding Claims 3, and 9: the attribute is a type of voice recorder (vocoder), first device revision indicator, first device identifier (Stone Table 1, pg 2 lines 5-6, Levy Fig 1, para 12-23, 26, 28-29, 36-41) The separate parts of the label identify all of these features, furthermore, Levy provides for adding the same information in relation to the improved watermark.

11. Regarding Claim 8: At the first device compressing the data stream (Stone pg 3 lines 9-10, Levy Fig 1 Paragraphs 15-23, 28-29, 35-38) Stone states that the utilizer 717 implements the watermarked data stream by transmission or any other possible means. Through the transmission of such a format the data would be compressed as provided for by Stone. The Levy reference further provides for, as a purpose of implementation,

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the compression of the data stream and application of the watermark either before or after such compression into an appropriate format so as to not lose the quality of such a marking.

Detecting capability of first device (Stone Table 1 pg 2 lines 5-6, Levy Fig 1, para 12-23, 26, 28-29, 36-41) The details of the source of the data are provided to the destination via the affixed information.

Generating a signature based on capability and applying as a watermark (Fig 1, pg 2 lines 5-15, Levy Fig 1, para 12-23, 26, 28-29, 36-41) as the applicant has acted as their own lexicographer to define a signature as defined in lines 7-8 of page 5 of the specification Levy provides for placement of the attributes within the data as a manner of watermarking the data thus according to MPEP 7.34.02 the claim is anticipated.

12. Regarding Claim 10: applying the signature to masked non-critical fields (Stone pg 7 lines 16-19, 37-40, 47-54, Levy Fig 1, para 12-23, 26, 28-29, 36-41) Stone provides for embedding the watermark within the data so that it may be imperceptible as such not modifying any critical fields of data, further Stone et al states that the watermark can be embedded within a header or data fields of the given stream. The methods used to insert the watermark by way of it being imperceptible constitute a form of masking the data within the stream by applying the bits in a mask format to the data stream. Levy provides for leaving the original watermark in place (see paragraph 26) while applying the improved watermark as an imperceptible layer as discussed above.

13. Regarding Claim 11: Data stream includes header information and multimedia information and the watermark is contained in the multimedia content (Stone pg 7 lines

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16-19, Levy Fig 1, paragraphs 7, 16, 18-20, 35-38, 41) As stated by Stone the watermark may be contained within the multimedia content. In accordance with compatibility of a newly placed watermark the Levy system is governed by the manner in which the original watermark was placed as related by the attributes.

14. Regarding Claim 18: At the second device determining a communication capability attribute contained in said information concerning the communication capabilities of the first device and comparing the attribute of the first device with the second device (Stone Fig 1, pg 2 lines 11-14, Levy Fig 1, paragraph 36) As is necessary within any such system for the basic functionality to be possible there is a means for the reception and use of the produced data within which the system functions as necessary within all basic features such as determination and negotiation of the protocols necessary for the produced data. Such steps are necessary for the decryption and implementation to be viable, otherwise the system would not function upon the initial method.

15. Regarding Claims 19-21: At the second device determining a communication capability attribute common to both the first device and the second device based on said comparing; Generating a parameter for use in communicating between the first device and the second device based on the determined common communication capability attribute; Recovering from the received message said data stream based on the parameter (Levy Fig 1, paragraphs 36, 15-23, 25-29, and 34-41; Stone Fig 1, pg 2 lines 11-14) Such a parameter is anticipated by both the watermark key that is recited within Levy as well as the usage of any particular codec which requires identification for

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purposes of implementation. Additionally, other parameters such as decryption keys or compression algorithms that are implemented require an equivalent parameter.

16. Claims 24-27, 32-33, and 36 are a system implementation of the above recited method and are rejected on the same grounds.

17. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stone and Levy as applied to claim 1 above, and further in view of Kari et al Publication No. WO 97/48212.

18. Regarding Claim 7: Stone and Levy teach a system for the watermarking of a compressed data stream based upon attributes but fails to teach the use of a plurality of particular algorithms.

19. However, Kari et al teaches a system (pg 4 lines 4-21) for the transmission of compressed data with an identifier for identification of one of a plurality of possible algorithms used to compress the given data stream.

20. It is desirable within any system to provide for means of increased processing speed and efficiency while maintaining a high level of security. The implementation of such a system so as to avoid bottlenecks (Kari et al pg 1 lines 30-35) and maintain security is desirable.

21. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the system of Kari et al with that of Stone et al for the advantages of improved transmission time and performance so as to avoid possible

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bottlenecks that may be encountered while maintaining the necessary security of the system through the implementation of a plurality of possible compression algorithms.

Response to Arguments

22. Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of art disclosed by the references cited and the objections made. Applicant must show how the amendments avoid such references and objections. See 37 CFR 1.111(c).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Szymanski whose telephone number is 571-272-8574. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on 571-272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TMS

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